

HOME-ESS-LV-9.4K

Quick Installation Guide

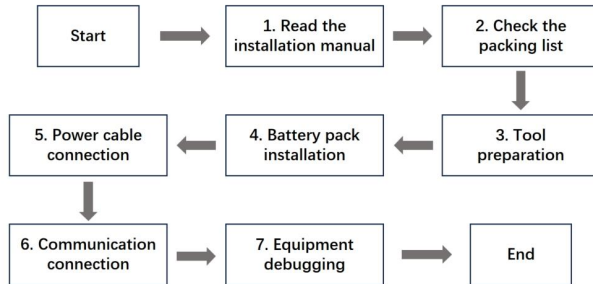
Version 04

FLOOR INSTALLATION

1.Installation Precautions

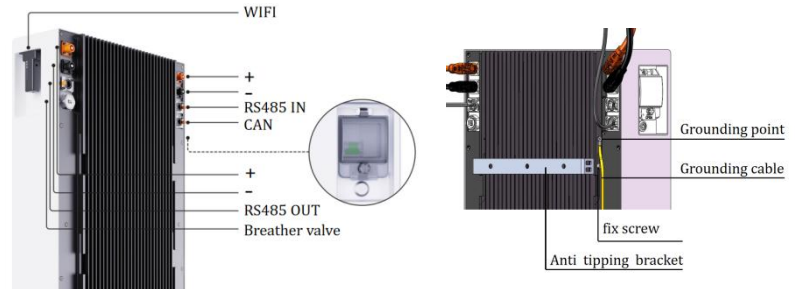
Flow chart of installation steps:

Please follow the equipment installation steps process to ensure the equipment can be successfully installed.



Schematic diagram of battery interface:

The definition of each interface must be clear during the installation process, otherwise the wrong connection will lead to installation failure or even damage to the equipment.



Please ensure that the installer meets the following requirements:

This system should only be installed by personnel with training and adequate knowledge of electrical power systems.

Please ensure that the installation location meets the following conditions:

- The installation and operational environment need to comply with local laws and regulations and relevant international national and regional standards for lithium battery products.
- Install in a dry, well-ventilated environment and secure the equipment on a sturdy and horizontal support surface.
- Avoid water accumulation in the installation location and keep away from water sources such as faucets, sewer pipes, sprinklers to avoid water infiltration.
- The environment around the installation location need to be clean. There is no infrared radiation, heat source,conductive dust,organic solvents and corrosive gases, etc.
- When the equipment is running, the temperature of the under-frame and heat sink will be relatively high, please do not install it in a place where it is easy to be touched.
- When the equipment is running, do not block the ventilation openings or cooling system to prevent high temperature fires.
- Please choose a sheltered installation site or build an awning to avoid direct sunlight or rain.

2.Check the Packing List

Please refer to the packing items shown below, please check the packing list carefully, if any items are missing, please contact your dealer directly.



Battery



Anti tipping bracket



Logger



Quick Installation Guide



RS485 communication Line



CAN communication Line



Power cable 1 Black



Power cable 2 Red



Power cable 3 Black



Power cable 4 Red



Universal wheel * 4



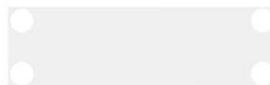
L-shaped hexagonal tool * 1



Expansion bolt * 6 and hexagonal
Screw M4x10 * 2



Ground screw and terminal
OT6-4/M4x10/SC-25-6/SC-35-8



Positioning auxiliary paper



Protective enclosure * 2

3.Tool Preparation

Step 1 : Protective equipment products must be worn and maintained during the installation process.



Safety gloves



Safety glasses



Safety shoes

Step 2 : Installation Tools: tools needed in the process of installing equipment, more effective to improve installation efficiency.



Phillips screw driver



Hammer



Torque screw driver



Ruler



Electric driver



Marker pen

4.Battery Pack Installation

There are two types of battery installation methods: floor installation and wall installation , Please refer to the corresponding installation manual separately.

Attention should be paid to the following items before installation:

- Power cable specification: The matching power cable is 3AWG, and the max current is 120A. Please do not work under the condition of exceeding this current.
- Mounting space: Make sure that the battery system has enough space to install, make sure the ground is strong enough to bear the weight of the battery system.

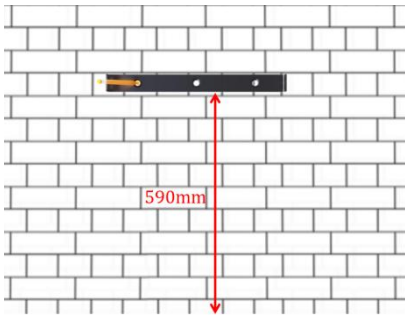
The battery is in danger of falling, so the anti-tipping bracket must be firmly installed on the wall, and the battery and anti-tipping bracket must be reliably fixed (the battery backplane and stand should be locked with screws).

- Wiring: Make sure the power cable and ground wire are reasonable. Not easy to short-circuit, water and corrosion.

Floor installation:

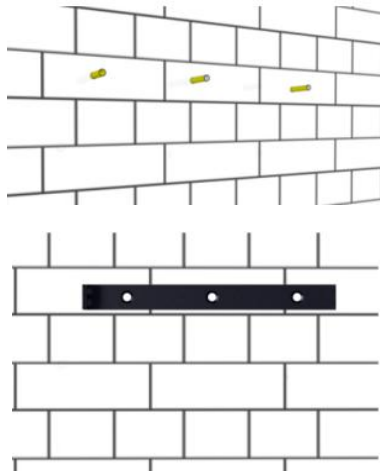
Step 1: Locate drill holes in the wall

Locating drill holes in the wall Using the bracket as a template, position the holes on the wall, mark the positions of the 3 holes, and then drill 10mm holes to ensure that the depth of the holes exceeds 50mm. The bracket should be placed 590mm above the ground.



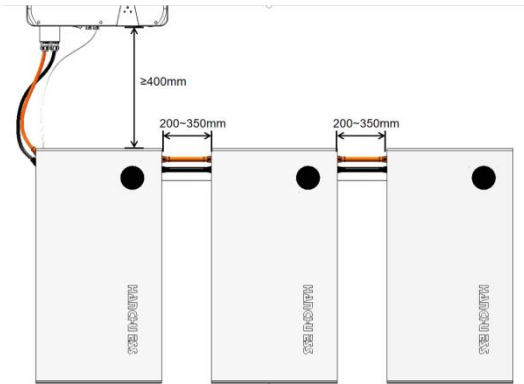
Step 2: Fix the anti tipping bracket

Fit the expansion tube into the hole and pull tight, then use the expansion screw to install and secure the anti tipping rack to the wall.



Step 3: Fix the battery module

There is a hook design on the back of the battery box. Align and fix it to the positioning groove of the anti-tipping bracket, and secure it with screws. The distance between the batteries should be 200-350mm, and the distance between the battery and the inverter should be no less than 400mm.



NOTE : We provide four universal wheels as standard with the device, which can be installed on the bottom of the battery, making the installation process more convenient. It can also be placed directly on the ground, the installation method is decided by the customer.

5. Power Cable Connection

Installation Preparation:

Before connecting cables, make sure the battery and inverter are entirely switched off. Make sure all breaker switches are fully switched off.

Before connecting the power cables, using multi meter to measure cable continuity, short circuit, confirm positive and negative.

Step 1 : Connect the battery ground cable :

The area of the grounding cable shall be prepared at least 6mm^2 , using a ground screw and terminal to connect the ground cable, which can ground the battery. The bolt locking torque is 6NM.

Step 2 : Power connections between two batteries

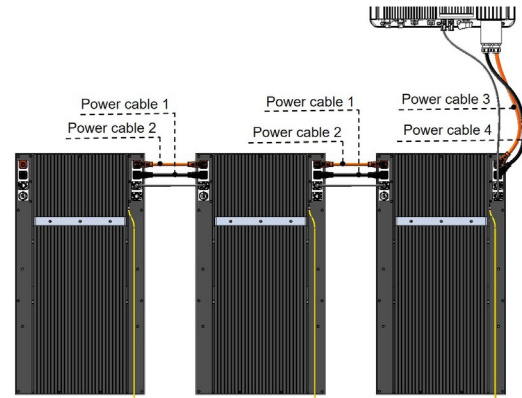
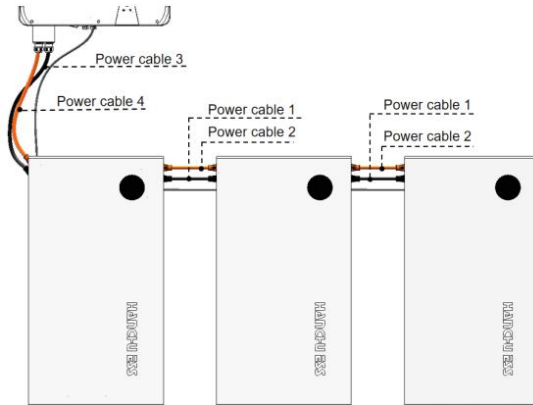
Use power cable 1 to connect the negative pole (P- terminal) of battery A to the negative pole (P- terminal) of battery B, and use power cable 2 to connect the positive pole (P+ terminal) of battery A to the positive pole (P+ terminal) of battery B.

Step 3: Power connections more than two batteries

Analogy derivation, more than two battery connections, connect the negative poles (P-terminal) between the battery , and connect the positive poles (P+ terminal) between the battery.

Step 4 : Connect the battery to the inverter power supply

After the battery is connected according to Step 1-3, connect the negative pole (P- terminal) of the battery A and the BAT - terminal of the inverter with the power cable 3; connect the positive pole (P+ terminal) of the battery A and the BAT + terminal of the inverter with the power cable 4 .



NOTE :

When the inverter is electrically connected, the inverter and batteries need to be powered off. Hear a sound locking into place as the cable connects to the terminal.

It is forbidden to mix batteries of different brands, specifications and batches, otherwise it will cause system failure.

6.Communication Connection

Step 1 : Connect the CAN communication line

Use the CAN communication cable to connect the inverter to the battery's CAN port.

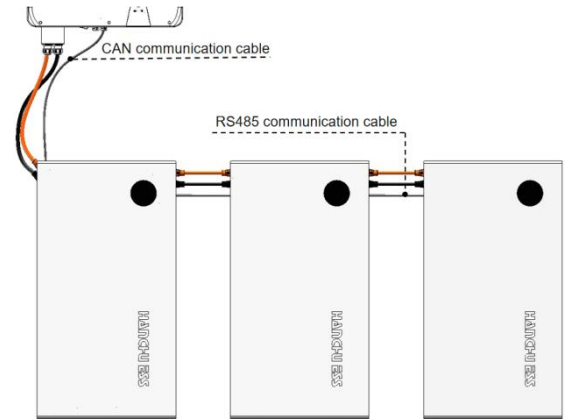
Step 2 : Connecting the RS485 communication line between two batteries

Use the RS485 communication line to connect the batteries in sequence through the RS485 port.

Step 3 : Connecting the RS485 communication line more than two batteries

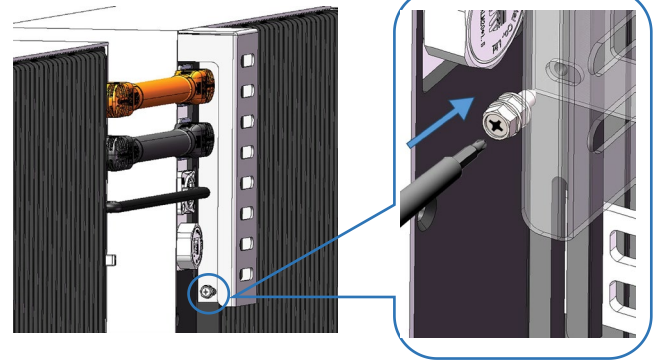
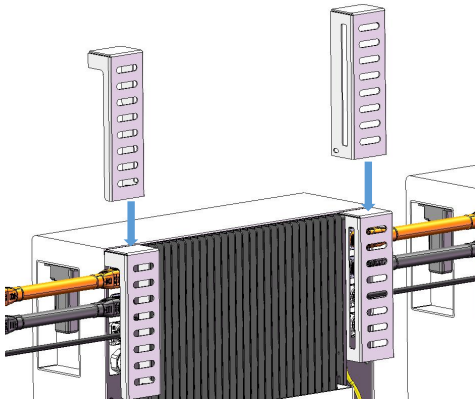
Use the RS485 communication line to connect the adjacent batteries in sequence through the RS485 port.

NOTE : The connection between the inverter and the battery must be connected to the CAN communication port of the battery, otherwise communication cannot be performed; similarly, the connection between the batteries must be connected to the RS485 port.



7.Protective Enclosure Installation

After all wiring harnesses are connected, insert the left and right protective enclosure from top to bottom as shown in the figure below until the top of the enclosure is parallel to the top of the battery. Then use the screws to fix the enclosure to the battery back plate.



8. Equipment Debugging

Step 1 : Equipment power on

Confirm again that the cables are connected in the correct order and the connection is firm before starting the test.

- 1) First turn on the inverter.
- 2) Then press the power switch power on the battery pack in turn to turn on.
- 3) Next, turn on the circuit breaker switch on the battery.
- 4) Observe the LCD status on the battery panel to ensure it is normal.

NOTE :

The shut down procedure is opposite to the startup process, first shut down the battery circuit breaker; Then shut down the power switch power on the battery. Final turn off the inverter. When the system starts, ensure the boot sequence of each equipment, otherwise it may cause pre-charging and trigger the circuit breaker protection fault.

Step 2 : Inverter Protocol Selection:

The default CAN and RS485 communication protocol for the battery is the Hanchu ESS protocol.

Protocol Selection:

- 1) Check which protocols are supported by the inverter;
- 2) If the inverter supports the battery factory default protocol, select the corresponding protocol on the inverter directly.
- 3) If the inverter supports protocols other than the battery factory default protocol, select the same protocol on the battery and the inverter.

Battery protocol selection: Select the interface and communication protocol matching with the inverter on the battery APP (protocol options include HANCHU, PYLON, DEYE, AISWEI, GROWATT, VOLTRONIC, GT), and the APP selection method is described in Monitor Usage Guide.

After setting, you can see the normal status information of the battery pack, such as voltage, SOC, etc. from the inverter.

Step 3 : Confirm Address

- 1) When the system is used in parallel, it supports up to 16 batteries in parallel.
- 2) When operating in parallel, it is necessary to confirm the address of each battery. The Run Status displayed on the screen includes battery addresses 01 to 16, where 01 represents the primary battery, and the remaining addresses 02 to 16 represent the sub-batteries.

Contact

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